

PATENT

Atty. Dkt. No. APPM005750/CP/LB/PJS

REMARKS

This is intended as a full and complete response to the Office Action dated June 21, 2005, having a extended statutory period for response set to expire on October 21, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Claims 1-6 remain pending in the application and are shown above. Claims 1 - 6 are rejected. Reconsideration of the rejected claims is requested for reasons presented below.

Claims 1, 5, and 6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mori, et al.* (U.S. Patent No. 6,673,262) in view of *Shang, et al.* (U.S. Patent No. 5,788,778). Claims 2-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mori* and *Shang* as applied to claim 1 above, and further in view of *Matsuse, et al.* (U.S. Patent No. 5,647,945). Applicant respectfully traverses the rejection. *Mori* describes a cleaning gas at 10 to 700°C (column 4, line 54 and claim 7) and a gas distribution plate at 40°C during film deposition (column 7, line 37). This does not suggest that the showerhead is at a higher temperature than that used when forming a film on a substrate. *Mori* does not even indicate that the cleaning gas enters the chamber through a gas distribution plate. *Matsuse* teaches a high frequency power supply 28 (column 7 line 66 to column 8 line 22) and illustrates power supply 28 with a wire. A microwave can not be transmitted by a wire. *Matsuse* does not suggest that the power supply 28 is interchangeable with any other activation method. *Shang* adds nothing to *Mori* and *Matsuse*. *Mori*, *Shang*, and *Matsuse*, alone or in combination, do not teach, show, or suggest activating a cleaning gas including a compound containing fluorine atoms by exposure to microwaves, and then introducing the cleaning gas into a chamber, raising a temperature of a shower head to a temperature greater than that used when forming a film on a substrate; and removing a deposit comprising tungsten and silicon, as recited in claim 1, and claims dependent thereon. Withdrawal of the rejection is respectfully requested.

Applicant further traverses the rejection of dependent claims 2-6 on grounds that they depend on allowable subject matter. Withdrawal of the rejection is respectfully requested.

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In conclusion, the references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed.

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicant's disclosure than the primary references cited in the office action. Therefore, Applicant believes that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

Having addressed all issues set out in the office action, Applicant respectfully submits that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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